USAID/India RFA#386-06-009

Open date: March 6, 2006
First Cut-off Date: May 1, 2006
Second & Final Cut-off Date: June 16, 2006

SUBJECT: REQUEST FOR APPLICATIONS FOR THE METHANE TO MARKETS PARTNERSHIP PROGRAM

This is a Request for Application (RFA) from the Office of Environment, Energy, and Enterprise (E3) USAID/India to all interested parties in India, the US and other countries. This RFA calls for financially supporting activities that focus on the capture and commercial utilization of methane gas that will support USAID/India's energy and environment strategic objective and the Methane to Markets Presidential Initiative[1].

The Methane to Markets Partnership is an action-oriented initiative that seeks to contribute to the reduction in global methane emissions while enhancing economic growth, promoting energy security, improving the environment, and reducing greenhouse gases. Other benefits envisioned include improving mine safety, reducing waste, and improving local air quality. The initiative focuses on cost-effective, near-term methane recovery and use as a clean energy source. It will be done internationally through collaboration between developed countries, developing countries, and countries with economies in transition - together with strong participation from the private sector. The Methane to Markets Partnership initially targets three major methane sources: landfills, underground coal mines, and natural gas and oil systems.

The RFA promotes a USAID business model known the **Global Development Alliance**.[2] The Global Development Alliance (GDA) works to enhance development impact by mobilizing the ideas, efforts and resources of the public sector with those of the non-US and US private sector and non-governmental organizations. GDA promotes development approaches that:

- Respond to a new global environment and new challenges
- Extend USAID's reach and effectiveness in meeting its development objectives
- Leverage additional resources for development impact
- Foster cooperation between USAID and new partners

The strategic objective of USAID/India in the energy and environment portfolio is to enhance access to clean energy and water resources in selected states. Focal states

[1] http://www.methanetomarkets.org and http://www.epa.gov/methanetomarkets

[2] http://www.usaid.gov/gda/

include Andhra Pradesh, Gujarat, Karnataka, Rajasthan, and Uttar Pradesh. This approach does not preclude us from working elsewhere, but we look first to these geographic regions in order to concentrate resources and collaborate with other partners active there.

Development Context

Energy is a prerequisite for economic growth. Agriculture, manufacturing, shops, trading, transportation, and construction are all engines of economic growth and all require energy to function efficiently. All productive activities rely on energy in some form, and the productiveness of these activities increases exponentially with the application of modern energy sources. All businesses, formal or informal, large or small, rural or urban use energy in their offices, in manufacturing establishments, and for transport. Conversely, a lack of commercial energy constrains economic growth and social development.

Methane is a significant greenhouse gas having over 20 times the global warming potential of CO_2. Significant methane sources include landfills, coal mines, oil and natural gas systems, rice paddies, and cattle operations. In coal mines, methane is a serious hazard because it is explosive. Its reduction will improve mine safety. The Methane to Markets (M2M) Partnership currently focuses on the non-agricultural sources of the gas however inclusion of agricultural sources of methane in M2M is currently being explored. Methane can also serve as an important source of energy.

The potential of converting methane that is currently contributing to global warming to productive uses holds great promise in India. Methane could be used for electricity generation or fuel for industrial processes or domestic applications. This would allow for substitution of methane for polluting fossil fuels or relieve the pressure on forest resources for fuel. USAID/India would like to stimulate this potential by providing a grant for concrete activities that will lead to methane capture and productive utilization.

The majority of energy in India comes from combustion of fossil fuels. More that 70% of India's electricity supply is derived from thermal sources. Much of this electricity is generated by burning high-ash India coal, which provides relatively low calorific value and a great deal of waste in terms of CO2 emissions, particulate matter, and ash. Tremendous technical and commercial losses in the power sector stemming from inefficient practices and equipment have resulted in unreliable power and huge subsidies from the states to shore up the system. The negative environmental consequences from power generation are even more difficult to bear considering the fact that a good percentage of electricity generated is lost at some point in the distribution system or is never paid for. This deprives utilities the means to potentially invest in cleaner, more efficient technologies.

Sustainable growth depends on reliable energy supplies and a well-managed natural resource base. Recent progress has been made in India in terms of cleaner energy development, more efficient energy use, and pollution reduction. However, current

financial losses in the power sector total billions of dollars annually. State utility bailouts come from state governments that can ill afford them. These subsidies siphon off funds that could be used more productively. New technologies, practices, and institutional and financial models must be tested. The sector must be reformed to promote dependable and self-supporting services. India recognizes the need to address these problems and reform has begun in some states.

Good power service is linked to effective water use in cities and agriculture. Currently a significant amount of energy is used to pump water in rural and urban areas. Over-pumping by farmers, who drill for water without limits when inexpensive or free electricity is available, is causing a groundwater shortage. In the cities, consumer demand for water cannot be met, health problems are erupting as a consequence of aging infrastructure, and fees for services do not cover costs. The power cost of water delivery to customers can be the single highest expense of the already cash-strapped water utilities.

Locating power generation closer to consumers in distributed generation systems may help address these constraints in the power sector. Distributed generation units powered by methane gas is a technology that could help decrease greenhouse gas emissions, reduce the financial losses to the sector by cutting down technical and commercial losses, and stimulate economic growth.

Problem Statement

Financial viability in the Indian power sector is important to India's overall economic health. Yet significant power shortages still plague the economy due to a lack of cost-recovery by utilities, and the subsequent inability of utilities to provide reliable, high quality power. The result is widespread bankruptcy of power utilities and increasing levels of state fiscal deficits. Reform of electric power distribution is required to get cash flowing again through the system and stem both technical and commercial losses, including theft.

The agricultural sector is responsible for the greatest losses of power distribution companies. Such pumping demands a major portion of electricity supply (estimated at 30+% of total electricity use), while providing the smallest fraction of total revenue from electricity generation and distribution. Poor water pricing and management policies worsen this wastage of both power and water resources. As water tables decline, more power is needed to pump. Financial losses of billions of dollars in the power sector, borne by state governments in the form of subsidies, preclude critical investments in other sectors.

The single largest contributor to India's greenhouse gas emissions is the inefficient power sector. Seventy-one percent of Indian power is thermal. Most of that is produced by high-ash coal, which releases significant levels of particulate matter and, due to its low heat value, more greenhouse gas emissions per kilowatt hour than most other coal-fired power anywhere else in the world. India is the world's fifth largest source of greenhouse gas emissions and the second fastest growing after China. If the climate continues to warm,

this could have a detrimental impact on Indian coastal zones through inundation, increased flooding or saltwater contamination. Agricultural yields could be depressed and the severity and frequency of extreme weather events could be magnified. Indian women, men and children utilize and depend on energy and water resources in different ways. Women and girls in India spend a large amount of time supplying household energy and water needs. Increased labor demands for supplying these resources are largely born by women and girls. As all resources become scarcer, girls may receive disproportionately less of the total available to the family. In addition, inhalation of fumes from burning fuels such as dung, biomass, kerosene, or oil can have serious health impacts, particularly on women and girl children, due to different gender roles in household management, such as more time spent cooking indoors. When water quantity issues begin to impact water quality, other problems arise. As water quality declines, women and girls spend more time caring for sick family members affected by poor sanitary conditions. This may contribute to reduced school attendance among girls and an overall reduction in family productivity. Finally, just as when less total available resources at the household level have a disproportionately negative impact on girls, so too, do fewer resources for social sector investment at the State level due to power sector losses have a disproportionately negative impact on them.

Strategic Approach

USAID will continue to work with the public sector, private sector, and civil society to facilitate reform within the power sector resulting in better provision of energy services to consumers, improved cost-recovery by utilities, and expanded reliance on clean energy technologies. This will help stimulate economic development with resulting social benefits, and will generate a positive impact on both the local and global environment. Participation in M2M will contribute to this process by trapping a significant greenhouse gas and using it for a productive purpose.

Through this RFA, USAID plans to increase knowledge of and investment in utilization of methane as an energy source. USAID hopes to facilitate several concrete, demonstration projects that trap methane and use it in a productive fashion for power generation, industrial processing, or domestic applications.

USAID will work in partnership under a Global Development Alliance framework with interested stakeholders. Partners could include, but not be limited to, private sector energy managers or industry representatives, financial institutions, research and academic groups, and non-governmental organizations (NGOs). The purpose of the partnership would be to help promote approaches and technologies that trap methane for productive uses as stated above. USAID plans to focus on activities that unite multiple partners (each partner would bring resources to the effort), so that concrete approaches can be demonstrated in Indian communities. USAID financial support will serve as an incentive fund to minimize the risk and overall cost of the proposed activity.

Specific Areas of Interest

USAID/India is interested in supporting innovative programs, implemented by or involving Indian partners that support the following:

- Encouraging the use of efficient methane capture and utilization for power generation and distribution technologies;
- Encouraging the use of efficient methane capture and utilization for industrial applications;
- Encouraging the use of efficient methane capture and utilization for domestic purposes;
- Demonstrating new organizational or institutional models for provision of methane-powered energy services to rural or urban areas.

Illustrative programs might include:

- Implementation of a municipal solid waste methane extraction and utilization program;
- Demonstration of decentralized energy systems run on methane gas with a particular emphasis on cost recovery through user fees;
- Establishment of a methane recovery and utilization program with an industry such as hotels, agro-processing, mining, oil and natural gas, or tannery.

Application Process

There are two deadlines for submission of applications. The first cut off date is May 1, 2006. The second and final cut-off date is June 16, 2006. USAID will review applications (proposals) received by the first cut-off date and may make one or more award from amongst those timely proposals. A second group of proposals will be reviewed after the second cut-off date. USAID may decide after review of the timely proposals received by the first cut-off date not to make an award at all and wait to review proposals, if any, received by the second cut-off date. However, USAID does reserve the right to make award(s) only from those timely proposals submitted by the first cut-off if it so chooses.

Innovative and cross-cutting applications are encouraged and indeed expected. Submissions are limited to a 5-page concept paper, in English, in the following format:

1. First page – full legal name of organization/firm, street location, mailing address (if different the location), name point-of-contact(s), telephone and facsimile numbers, internet email address(es), website address, if any;
2. Second through fourth page should contain a summary of the program (proposed idea or project), that includes a "Background" and a "Brief Program Description" as follows.
   - Activity description
   - Partners
   - Beneficiaries
   - Criteria for success
3. Fifth page – Summary of budget of Cost to be paid by USAID and the amount, type and sources of the Cost Sharing, In-kind contribution or leveraging from others.

Applications should be sent via e-mail, mail, hand-carried or fax to:

Mr. Arun Sehgal
Regional Office of Acquisition and Assistance
U.S. Agency for International Development (USAID)
American Embassy, Shanti Path, Chanakya Puri, New Delhi -110 021
Fax: 11-2419-8454
Internet E-mail: asehgal@usaid.gov or IndiaRCO@usaid.gov

These initial applications will be reviewed by USAID. The organizations submitting the most promising applications, based on the criteria below, will be asked to submit more detailed descriptions within 30 days of the date the organization is notified. Expanded applications will call for a detailed program description, budget proposal, and other supporting material such as CVs for key project personnel to help USAID more fully understand the proposal program.

Questions should be addressed to Mr. Arun Sehgal at USAID by internet email or fax, but not by telephone. Particular relevant questions answered may be posted at the USAID/India Mission website (http://www.usaid.gov/in/ under "Working with us") for all interested parties to review.

New awardees will have to meet with the USAID Agreement Officer for a post-award debriefing within 30 days of the official award of any grant and make an oral presentation of their overall program to USAID/India within 60 days of award.

USAID may place up to six awards. The total available for Fiscal Year 2006 (Oct 1, 2005-September 30, 2006) to support this new program will not exceed $400,000, and is contingent on availability of the funds. Awards are made for up to 24 months, starting on or about June 1, 2005. As the purpose of the awards is to facilitate demonstration activities, partial payment will be made at the beginning of the implementation period and subsequent payments will be based on achievement of concrete milestones identified within the proposal. After 24 months, agreements may be extended or expanded, based on the evaluation criteria listed in the detailed application and on the availability of funds.

Evaluation Criteria

USAID shall use a Best Value/Trade-off method of analysis of all application (proposals). The first significant technical factor below - "Approach… "- is weighted as the single most important evaluation criteria. "Key Personnel & Organizational Experience" is the second most important factor. Rounding out the evaluation criteria is the "Cost" evaluation factor. While the least significant factor among the three it is a key criteria in the selection decision and must be addressed as instructed. Applications will be evaluated based on the following criteria:

1. Technical Approach
    a. innovation and creativity of approach;
    b. clarity, completeness, quality, and specificity of the technical application;
    c. appropriateness of planned activities and approach including cross-cutting links with gender, urban, governance, technology and partnerships;
    d. likelihood of reaching expected results and sustainability;
    e. soundness of work plan, monitoring plan, and implementation plan

2. Past Performance
    a. demonstrated skill and past experience in clean technology applications;
    b. demonstrated past experience in methane capture or climate change programs;
    c. demonstrated past experience or capacity in grants or contract management;
    d. demonstrated program in the selected focus Indian states;
    e. demonstrated past coordination or collaborative approaches with multiple partners including industry and/or NGOs.

3. Budget:
    a. Total program cost.
    b. Reasonableness and appropriateness of budget allocations (such salaries, equipment unit cost, ground and air travel, and other direct and indirect cost as applicable);
    c. Cost Share Contribution (Global Development Alliance projects are expected to leverage financial resources at least at a 1:1 ratio. Currently funded GDA

activities in India have been able to secure much higher financial contributions from private partners. Since successful M2M projects will require significant capital investment leverage of approximately 1:8 could be expected.)

Regards,

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